Dupline® Field- and Installationbus Display Receiver with Limit Outputs Type D 6369 6475

CARLO GAVAZZI

- **4-digit 7-segment LED-display with sign**
- **Freely scaleable**
- **2 relay limit outputs (HI, LO)**
- **2 NPN transistor limit outputs (HIHI, LOLO)**
- **LED-indication for all limit outputs**
- **Automatic or manual reset of limit outputs**
- **Protocol selectable (3 1/2-digit BCD, 4-digit BCD, 8 bit binary)**
- **Multiplex or normal mode**
- **Internal or external selection of multiplex address**
- **AC power supply**

Product Description

Freely scaleable Dupline 4 digit LED-display with sign, for panel mounting. Readout of analog signals, counter values or time. 4 limit outputs with LED-indication. Protocol selectable (3 1/2 digit BCD, 4-digit BCD, 8 bit binary)

Ordering Key

D 6369 6475 024

Type: Dupline
Type no.
Supply

Type Selection

Supply	**Ordering no. 8/16 channels 4-digit LED**
24 VAC	**D 6369 6475 024**
115/230 VAC	**D 6369 6475 230**

No code module required

Input/Output Specifications

Inputs		
Limit output reset		1 contact or NPN transistor
Multiplex address selection		4 contacts or NPN transistors
Open loop voltage		5 VDC
Short circuit current		50 µA
Contact resistance		≤ 10 Ω
Cable length		≤ 2 m
Dielectric voltage		
Inputs - Dupline		≥ 500 VAC (rms)
Inputs - Relay outputs		≥ 4 kVAC (rms)
Inputs - Transistor outputs		≥ 4 kVAC (rms)
HI, LO - limit outputs		2 SPST relays
Isolated in groups of		2 x 1
Contact ratings (AgCd0)		µ (micro gap)
Resistive load	AC1	5 A/250 VAC (1100VA)
	DC1	0.25 A/250 VDC (62 W)
	or	5 A/25 VDC (125 W)
Inductive loads	AC15	2.5 A/230 VAC
	DC13	5 A/24 VDC
Mechanical life		≥ 30 x 10^6 operations
Electrical life (max. load)AC1		≥ 2.5 x 10^5 operations
Operating frequency		≤ 7200 operations/h
Dielectric voltage		
Outputs - Dupline		≥ 4kVAC (rms)
Outputs - transistor outputs		≥ 4kVAC (rms)

Display	
Display format	7-segment
Display range	-9999 to +9999 (4 digits)
Display type	LED
Height of digits	14.2 mm
Display colour	Red
Change of sign (automatic)	Yes
Decimal point	Configurable by keys
Scaling feature	Yes
Multiplex feature	Yes
Display test	Yes
Transmission protocol	3 1/2, 4-digit BCD, 8 bit binary
Limit values	4 (HIHI, HI, LO, LOLO)
Settings	
Channel address	Keys and display
Multiplex address (internal)	Keys and display
Scaling	Keys and display
Decimal point position	Keys and display
Limit values	Keys and display
Normal/multiplex mode	Keys and display
Enable/disable limit outputs	Keys and display
Transmission protocol	2 DIP switches
Internal/external selection of multiplex address	1 DIP switch
Automatic/manual reset of limit outputs	1 DIP switch

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Supply Specifications

Power supply		Overvoltage cat. III (IEC 60664)
Rated oprational voltage	230	115 and 230 VAC ± 15%
	024	24 VAC ± 15%
Frequency		45 to 65 Hz
Dropout tolerance		≤ 4.5 ms
Rated operational power		Typ. 8 VA
Rated operational withstand voltage	230	4 kV
	024	800 V
Dielectric voltage		
Supply - Dupline		≥ 4 kVAC (rms)
Supply - Inputs		≥ 4 kVAC (rms)
Supply - Relay outputs		≥ 4 kVAC (rms)
Supply - Transistor outputs		≥ 4 kVAC (rms)

General Specifications

Power ON delay	≤ 3s
Indication for	
HIHI limit output	LED, red
HI limit output	LED, yellow
LO limit output	LED, yelow
LOLO limit output	LED, red
Environment	
Degree of protection	IP 20
Pollution degree	3 (IEC 60664)
Operating temperature	0° to +60°C (+32° to +140°F)
Storage temperature	-25° to +85°C (-13° to +185°F)
Humidity (non-condensing)	0 to 80%
Mechanical resistance	
Shock	15 g (11 ms)
Vibration	2 g (6-55 Hz)
Material	Glass-reinforced Noryl
Weight	460 g
Approvals	UL, CSA

Display Specifications

HIHI, LOLO limit outputs	2 NPN transistors
Watchdog-output	1 NPN transistor
Isolated in groups of	1 x 3
Output voltage range V_{BB}	6-60 VDC
Reverse-polarity protection	None
Current per output	≤ 250 mA
Total load capability	100%
Short-circuit protection	None
Built-in protective diodes	None
Off-state leakage current	≤ 500 µA
Output voltage drop	≤ 2.5 V
Dielectric voltage	
Outputs-Dupline	≥ 4 kVAC (rms)
Response time	
Multiplex input	≥ 1 pulse train
Reset inputs	≥ 1 pulse train
Limit outputs	≥ 1 pulse train
Watchdog output	≥ 1 pulse train

Mode of Operation

4-digit 7-segment LED display used to monitor analog signals, counter values or time of the day.

The display value is freely scaleable within the range -9999 to +9999 with selectable position of the decimal point. Values from 3 1/2-digit BCD, 4-digit BCD and 8-bit binary transmitters can be displayed, since the transmission protocol is selectable.

4 limit outputs are available:

HI, LO -relay outputs
HIHI, LOLO -NPN transistor outputs

Each output can be allocated freely to any scaled display value. The limit outputs turn on whenever the value controlling the outputs is equal or above the limit value setting for HI and HIHI (equal or below for LO and LOLO).

It is selectable whether the limit outputs shall be reset automatically (by the value controlling the limit outputs returning to normal) or manually by activation of the "Limit Reset" - input. The limit outputs may also be disabled if this feature is not required.

4 LEDs at the front also indicate the signal level compared to the 4 limit settings, blinking upon limit alarm, steady state after a manual reset. The display can be used in normal mode as well as in multiplex mode (3 1/2-digit BCD protocol only). When used in multiplex mode, the multiplex address for the display may be selected by a selector switch (e.g. on the cabinet door) that connects to the "Multiplex Address" inputs. Each of the display values from the 16 multiplex addresses can be scaled individually. The limit value setting however will always refer to the multiplex address defined during the configuration.

With the 4 keys at the front the display shifts to program mode, in which scaling, decimal point position, limit value settings, channel address, multiplex address etc. is configured.

For further information please refer to the "User Manual" delivered with the unit.

Specifications are subject to change without notice (07.09.99)

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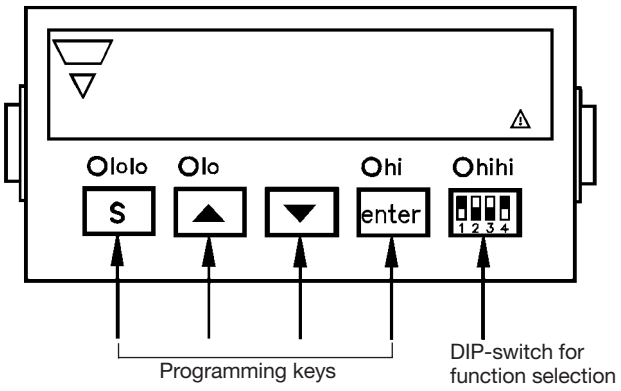
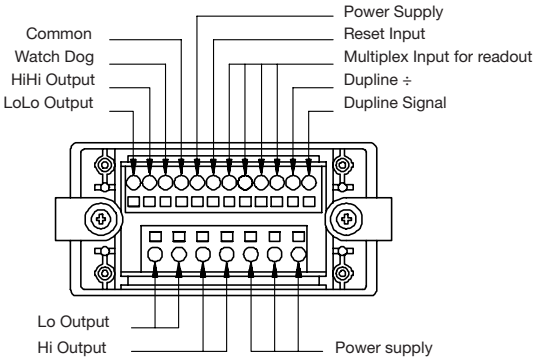
Multiplex Address Selection Inputs

Multiplex address	Multiplex address input terminals			
	MSB			LSB
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
a	1	0	1	0
b	1	0	1	1
c	1	1	0	0
d	1	1	0	1
e	1	1	1	0
f	1	1	1	1

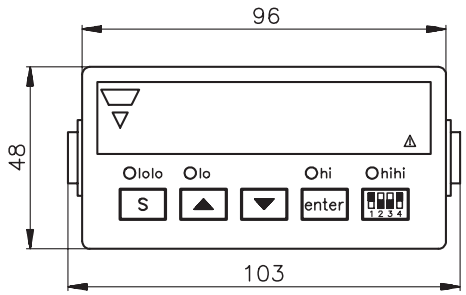
Settings



Functional Description



Dimensions (mm)



Wiring Diagrams